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ABSTRACT

An error analysis of the oral production of Korean adults learning English was performed on informant speech samples, using Corder's Algorithm for providing data for description of idiosyncratic dialects as a guide for determing error. The procedures of error analysis and morpheme acquisition studies were combined to address the following questions: (1) which errors occur most often in oral Korean English, (2) whether there is an order of difficulty of these morphemes for the group, and (3) whether a natural order of accuracy could be found for these morphemes when the orders of accuracy for three proficiency levels were compared. Examination and analysis of the data revealed the existence of a significant correlation between the three composite orders of accuracy. Explanations for shifts in the rank order of certain morphemes between levels are offered, and implications of the study for English as a second language teachers are explored. (Author/AMH)

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AN ERROR ANALYSIS OF THE ORAL PRODUCTION OF KOREAN ADULTS LEARNING ENGLISH

by

Ruth Emily Fischer

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of
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ABSTRACT

An error analysis of the oral production of Korean adults learning English is performed on informant speech samples, using Corder's Algorithm for Providing Data for Description of Idiosyncratic Dialects, as found in Ghadessy (1976), as guide for determining error. This study combines the procedures of error analysis and morpheme acquisition studies to address the following research questions.

1. What are the errors which occur most often in oral Korean English?
2. What is the order of difficulty of these morphemes for the total informant group?
3. Is there a "natural order of accuracy" found for these morphemes when the orders of accuracy for three proficiency levels are compared?

Based on Kendall's Coefficient of Concordance, a significant correlation exists between the three composite orders of accuracy at the level of .01. Explanations for shifts in the rank order of certain morphemes between levels are offered, and implications of this study for ESL teachers are explored.

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To Amy Kristin and Hilary Ruth
and to Rich
for the helpful things they did
so I could work in peace

Colossians 3:17

CHAPTER I

INTRODUCTION

The study of error is important for two basic reasons: pedagogically, to discover the kinds of target language (TL) structures and concepts that cause trouble for second language learners with a common language background and, theoretically, to map out the cognitive strategies used in acquiring the TL and the order in which TL structures are acquired. However, before such a classificational hierarchy of error patterns can be deduced for a language group, errors germaine to that group must first be analyzed. The language group under consideration in this study is composed of speakers whose first language is Korean.

Korean Americans comprise the largest group of nonnative speakers of English in northern Virginia. Although classroom ESL teachers may have formed valid, though statistically unfounded, opinions about the linguistic problems unique to the language group, no research, to my knowledge, based on a controlled systematic error analysis has been conducted on any corpus of oral production of adult Korean learners of English as a second language. The purpose of this study is to conduct an Error Analysis of the oral production errors that adult Koreans make in learning/acquiring English.

This study attempts to answer three research questions.

1. What are the errors which occur most often in oral Korean English?

2. What is the order of difficulty of these morphemes for the total informant group?

3. Is there a "natural order of accuracy" for these morphemes? In other words, if the morphemes are ranked according to the accuracy with which the morphemes are supplied by each informant, will these individual orders be basically similar? If the orders of accuracy are similar for different subjects, it will suggest that certain English structures are naturally more difficult for all Korean speakers to learn, a fact with pedagogical implications.

The term 'morpheme' is used throughout this study to include any linguistic feature that warranted the attention of the researcher by its failure to be used correctly, as set out in the chapter on Methodology. Almost all of these features are morphemes, but certain other features, such as Negation, are classed as morphemes for convenience.

CHAPTER II

REVIEW OF THE LITERATURE

Making errors is an integral part of learning something new. Students of a second language make countless errors as they attempt to become proficient in that language; errors resound in ESL/EFL classes around the world as students come to grips with English, at least in those classrooms unfettered by vestiges of the behaviorist notion of error. But what is actually meant by the term 'error' and how are we to account for it?

Teachers and methodologists of the behaviorist camp, such as Fries and Lado, who view language learning as basically the acquisition of a set of habits, see errors as "pathological manifestations that must be eradicated at all costs" (Valdman and Gradman 1979, p. v). Learning has to be so structured that students will not utter any deviant form lest that form begin an incorrect habit. No discussion regarding types or derivations of error is necessary; all deviant forms not uttered by native speakers are considered equally heinous.

However, the advent of the rationalist approach to language learning brought with it the view that language learning and behavior reflect not mere habit formation, but rather creativity "within the bounds of grammaticality" (Diller 1978, p. 24). Error is viewed as not only a necessary adjunct to attempts at communication in a new language, but also as a means of plotting an individual's interaction with and

development in the new language. The name and nature of the development has varied from Nemser's approximative systems (1971) and Corder's idiosyncratic dialect (1971) to Selinker's Interlanguage (1974), but all have reflected the value and necessity of error in language learning.

Corder (1973) says that native speaker errors are breaches of the rules of the code of English producing grammatically or lexically unacceptable utterances. He distinguishes these deviations from those which do not reflect an imperfect knowledge of the code, but are accidental "lapses," that is, "slips . . . false starts or confusions of structure" (p. 259) producing unacceptable utterances or, when failing to use the expected language forms in a given situation, inappropriate utterances. In an attempt to remove the onus of error with respect to second language learners, he qualifies his definition by saying that the notion of error properly involves the sense of willful negligence of what ought to be known by the speaker. He considers this assessment unfair when referring to those breaches produced by students who are developing their own idiosyncratic dialects enroute to native-like competence in the target language (TL). In his discussion of the idiosyncratic dialect of second language learners (1971), he even goes so far as to say that, inasmuch as second language learners are being true to their individual developing grammars, their deviant structures cannot rightly be considered errors at all. His ultimate definition of error, however, acquiesces to language learning terminology as referring to "those features of the learner's utterances which differ from those of any native speaker" (p. 260). Corder (1974) also distinguishes mistakes, which are errors of performance characterized by their

unsystematic nature, from the term 'error', which denotes "systematic deviations of the learner from which his knowledge of language at that time can be reconstructed" (p. 95).

Brown (1980) speaks of error as "a noticeable deviation from the adult grammar of a native speaker, reflecting the interlanguage competence of the learner" (p. 165) and mistake as a performance error that fails to use what is known of the system correctly, stressing the subjective nature of distinguishing between the two. Dušková (1969), though she fails to explain her criteria for the two types, delineates those "recurrent errors of systematic character" which show no actual deficiency in knowledge of the target language because most learners know and could readily apply the appropriate rule from those errors that could not be thus characterized (p. 16). Her discussion hints at Corder's (1973) distinction between the presystematic, systematic, and postsystematic stages of error. Enkvist (1973) speaks of errors that hinder communication and those that do not, suggesting that what is considered deviant presupposes "as many norms, standards, and measures as there are goals and situations" (p. 20). For him, the determination of what is to be considered deviant is contingent upon grammaticality, appropriateness, and acceptability, an assertion he calls the functional relativity of errors. Burt (1975) refers to those errors that hinder communication as global errors and those errors that, though bothersome, allow communication as local errors.

Obviously, researchers, methodologists, and teachers have felt the need to discuss what constitutes error with respect to second language learners. Possibly, a better solution might have been to coin a new

term to deal with the production phenomena of second language learners that deviate systematically, for whatever reason, from the target language. Since this has not been the case, for the purpose of this study, the term 'error' will refer to systematic deviations from what native speakers of English would consider standard and "non-foreign".

Approaches for dealing with error have reflected attitudes about the nature of foreign language learning. Fries and Lado, in equating language learning with habit formation, treated error as evidence of poor teaching methods and improper learning. Contrastive Analysis (CA) was their response to error; they sought to prevent error by predicting where it would most likely occur through a comparison of the native language and TL systems. In its original "strong" version (Wardhaugh 1974), CA, also referred to as the predictive version as well as CA apriori (Schachter 1974), proposes that students are prevented from learning a second language because of the interference of the mother tongue (MT) and that the comparison of the TL and the MT language systems would predict those structures which would prove most difficult to learn, the greater the difference resulting in the greater difficulty. This comparison was to be done by classroom teachers as well as linguists (Lado 1964). Teaching materials could then be devised to deal with these difficult structures, thereby maximizing teaching time and minimizing the occurrence of error. Fries (1947) felt that "the most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner" (p. 9).

Several factors contributed to the demise of the original version of CA. One of these factors was CA's close association with the American school of structural linguistics and the behaviorist view of learning, both of which fell into disrepute with the advent of transformational-generative grammar and the rationalist view of learning. Dušková (1969) challenges CA's assertion that MT interference is the cause of all TL learning difficulties, finding in her study that interference from the MT did not account for a large number of errors. CA also failed to live up to its predictive claims. As soon as researchers--not to mention classroom teachers--began to analyze student errors in the light of CA, it became apparent that CA did not predict a large proportion of those errors (Chau 1975; Hakuta and Cancino 1977). Furthermore, linguists and teachers alike found it difficult and time-consuming to put CA's techniques for language comparison into practice. Ritchie (1967) faults CA's assertion concerning the development of teaching materials by saying that language courses that cause learners to focus on the disparities between their MT and the TL, instead of allowing them to use their general intuitive knowledge about the linguistic structure of the TL as a whole, produce gaps in their understanding of the TL.

As the force of the strong version declined, another interpretation of CA emerged. This "weak" version of CA, also referred to as the explanatory version as well as CA aposteriori (Schachter 1974), utilizes the comparison of the two language systems as a tool for explaining learner errors after they have appeared (Wardhaugh 1974). Dušková's (1969) study supports this notion of CA as one of explanation of error

in terms of MT interference, rather than as predictor. Catford (1968) agrees with this blending of "sophisticated statistical analysis of error" and the use of CA "directed specifically where errors are most frequent" (p. 160). This revision has also not been without its critics. Schachter (1974) asserts that, since CA aposteriori is based solely on production and cannot account for the avoidance of structures in the TL, she finds it untenable, preferring the combination of CA apriori, which is neutral with respect to comprehension and production, and an approach known as Error Analysis (EA) which will be explained more fully later in this chapter.

Oller and Ziahosseiny (1970) have proposed a moderation in a tenet common to both versions of CA--that greater differences in structure result in greater degrees of learning difficulty. They use the terms 'strong' and 'weak' differently from Wardhaugh (1974) in that they focus on the effect of the knowledge of one language on the learning of another rather than on the analysis of two language systems. For them the underlying basis for the 'strong' version of CA is that "knowledge of the native language will inhibit learning of the target language and that this interference will be the greatest at the points of greatest differences" (p. 185); for the 'weak' version, the underlying basis is that "the knowledge of the native language will not inhibit learning of the target language, but that the greatest difficulty will occur where the greatest difference exists" (p. 185). Their moderate version, based on principles of concept learning and the results of their study, states that the greatest difficulty and confusion result not at the point of greatest disparity between the MT and the TL but where the forms are "minimally distinct" (p. 186). Their

assertion of this moderate version was born out in their study in which spelling errors of nonnative speakers whose MT used a Roman alphabet (Group R) were compared with those whose MT employed a non-Roman alphabet (Group NR). The 'strong' version of the Contrastive Analysis Hypothesis (CAH) predicts that students in Group R will produce fewer errors than the students in Group NR. The 'weak' version of CAH predicts that, because students already familiar with the Roman script have less to learn, they will have an easier time with English spelling, thereby producing fewer errors. The results of the study show that these predictions do not bear out and that "apparently, knowledge of one Roman writing system makes it more difficult, not less, to acquire another Roman system" (p. 188).

As focus shifted from the view of the learner as a producer of mistakes to that of someone capable of creative, intelligent interaction with the new language, attitudes about the nature, status, and use of error also shifted. Those who view error as a sign of learner growth in the TL came to espouse another approach to the analysis of error. As second language learning became regarded as a creative process of hypothesis testing about the TL designed to "provide order out of linguistic chaos" (Brown 1980, p. 162) that confront the learner, the status of error changed from the negative connotation of the Lado camp to that of proof positive of the learner's interaction with the language environment. This became know as Error Analysis (EA).

The historic origins of EA are somewhat cloudy. According to Chau (1975), EA was first used in the United States in the establishment of minimum essentials in the teaching of English between 1915 and 1933. He partially credits the advent of contrastive linguistics for

its revival, its function being to provide empirical data for verifying and supplementing CA (see also Madarász 1968; Dušková 1969; Nemser 1971). Hakuta and Cancino (1977) maintain that EA's influence was rooted in first language acquisition research with children whose errors were regarded as manifestations of an underlying rule-governed system developing toward an adult grammar. Still others see EA as an outgrowth of the Chomskyan view of the creative nature of language and the resultant backlash against the behaviorist's habit-formation theory of language learning (Schumann and Stenson 1974; Hakuta and Cancino 1977; Schachter 1977; Richards 1980).

Although the basic rationale underlying EA has remained fairly constant among researchers and methodologists, the term 'error analysis' seems to be as nebulous as the term 'error', for it has been used to cover a myriad of approaches to and attitudes about error within the rationalist framework of language learning and continues to be used to explain various hypotheses about second language acquisition to this day (Richards 1980). In its least technical state, the analysis of error has been used by classroom teachers for years to determine how well students have grasped and retained structures and concepts that have been presented. This activity, valid as it may be, is nevertheless too restrictive in scope; as Catford (1968) puts it, "Haphazard teachers' collections of common errors are not enough" (p. 160). Teachers usually have neither the time nor the expertise to do the more carefully controlled research that is properly characterized as EA.

Although EA is not explicitly mentioned, Corder's (1974) "The Significance of Learner's Errors", first published in 1967, sets the

stage for EA's emergence as a valid area in linguistic research by showing that learner errors are worth studying in order to gain insight into the nature of the second language learning process. Corder (1971) later discusses using EA to plot the development of an individual's idiosyncratic dialect, both to explain it and to discover something about the language learning process in general. His methodology consists of three stages, the first of which is the recognition of the idiosyncracy. The second stage, which consists of the accounting of the learner's dialect, is the description stage. The final stage, "the ultimate object of error-analysis" (p. 158), is the psycholinguistic explanation of the 'how's' and 'why's' of the learner's dialect. He also connects his application of EA and the interest in language learning theory at that time to formulate an alternative to the habit-formation theory of language learning.

Though Nemser (1971) is frequently cited as a precursor of EA, his link with EA is somewhat obscure. He proposes the idea of approximative systems (L_a) through which second language learners move as they attempt to utilize the TL and gain proficiency in it. Though he does not delineate a method for doing so, he contends that the study of L_a will benefit the classroom teacher in the planning of teaching materials and will serve as a means of validating contrastive studies. Although he makes no reference to the use of EA, his assertion that the direct examination of these systems is required for substantiating contrastive analysis cannot be taken seriously unless the errors of the learner are dealt with in some systematic manner as manifestations of the approximative system at work.

Selinker's (1974) methodology for analyzing learner error, although he does not refer to it as EA, unfolds in his theoretically based article, "Interlanguage". After noting the necessity for studying language behavior in a "meaningful performance situation", which he defines as "the situation where an 'adult' attempts to express meanings, which he may already have, in a language he is in the process of learning" (p. 114), he points out the difficulty in determining what linguistic behavior is relevant to the study of a psychology of second language learning. His procedure for studying learner error and its relation to the psychology of second language learning seems very similar to that which scientists use in developing theories about the natural world. Language behavior is observed, and interesting phenomena--"behavioral events" (p. 114)--are noted. A phenomenon is formalized into a concept, like a scientist's hypothesis, to provide a framework for isolating relevant data. Further instances of this phenomenon are described within this framework, and occasions for its occurrence are noted. The descriptive information about the construct suggests predictions which can then be verified in meaningful performance situations which allow for the "systematic collection of relevant data" (p. 125). One would assume that at this point these data would be used to substantiate or refine the original construct. Two constructs emerge in Selinker's article. The first of them is fossilization, "the regular reappearance in second language performance of linguistic phenomena that were thought to be eradicated in the performance of the learner" (p. 115). Selinker also hypothesizes the "existence of a separate linguistic system based on the observable

output which results from a learner's attempted production of a TL norm" (p. 117), which he labels Interlanguage.

Selinker proposes an explanation for fossilization of errors in terms of five processes which enable an analyst to account for these reoccurring error patterns. These processes include language transfer which deals with error resulting from the influence of the MT. Errors resulting from identifiable items in training procedures are accounted for by the process known as transfer-of-training. Strategies of second-language learning involves a learner's cognitive approach to the material to be learned. Those error patterns resulting from the way in which the learner approaches communication with native speakers of the TL fall under the process called strategies of second-language communication. Those resulting from the overgeneralizing of the rules and semantic features of the TL are dealt with under the strategy of overgeneralization of the linguistic material.

Taylor (1974) points out that three of these strategies, second-language learning, second-language communication, and syntactic over-generalization, can be applied to first language acquisition as well. Both groups "overgeneralize target language rules, reduce grammatical redundancy, and omit those target language rules which they have not mastered, presumably because of their essential arbitrariness" (p. 27). However, because of their advanced cognitive maturity and the fact that they have linguistic experience in a first language, adults have at least a quantitative edge over children in the language acquisition process. Taylor asserts that adults are less successful than children in language acquisitions because of affective psychological variables. He says that in order to attain native-like proficiency in the TL, adult

learners must have "a persevering motivation, the desire to identify with another cultural group integratively, and the ability to overcome the empathetic barriers set up by ego-boundaries" (p. 34). According to Taylor, recognition of the importance of these affective variables by the language theorist is essential for the development of a viable theory of language that provides an adequate explanation of the way in which humans as a whole learn language.

Strevens (1969) describes a more practically oriented approach to EA, one that includes "a detailed collection, analysis, and categorization of errors made by particular learners in a particular language learning situation" (p. 2). Svartik (1973) cites Nickel's 1972 description of the scope of EA, which extends Streven's basic steps to include an explanation of errors, the end result leading to therapy, that is, "a linguistic evaluation and the application of the results to teaching methods, syllabus design, and material production" (p. 8). While Corder (1973) cites this activity as a practical use of error, he also advises caution in saying that the study of error per se cannot be used in an absolutely straightforward way to develop materials. This is reminiscent of Ritchie's warning to those who would have based the development of teaching materials solely on contrastive studies. Strevens seems to say that the underlying assumption among those who use EA for pedagogical, remediative reasons, a situation prevalent throughout Svartik (1973), is that "all errors represent undesirable shortcomings in the learner's performance in the foreign language" (p. 6). He also asserts that EA functions differently for those who reflect the attitude of Corder, Nemser, and Selinker concerning error

as evidence not of a learner's "failures and shortcomings, but of his success and achievement in learning" (p. 8).

Chau's earlier comment about EA as empirical supplement to CA now makes better sense, at least in the respect that for some linguists CA and EA seem to have an interdependent relationship. Roughly speaking, those who view the relationship of EA and CA as interdependent, whether EA is used to prove a CA hypothesis about a certain structural comparison, or whether CA can explain errors found in the analysis of a learner's performance, would be those who view EA's function as explanatory and remedial. This is not to assert that all who see EA's function as pedagogically practical share the behaviorist's attitude about the absolute nature of error; Enkvist, as noted earlier, while using the analysis of error to revise teaching programs, also recognized error's relative nature.

On the other hand, those who, like Corder, view the positive developmental nature of errors tend to view EA in a more theoretical light. Out of the attempts to use EA along theoretical lines have come hypotheses about the strategies that second language learners use to deal with the TL and the use of these strategies to account for the origin of error. Corder (1973) thus speaks of interlingual versus intralingual error types and the gradations of error along developmental lines in the distinction of presystematic, systematic, and post-systematic errors. In the presystematic stage of acquiring a structure or concept in a language, the learner only occasionally gets it right, as if by chance. During the systematic stage, the learner tries to discover how the system works with respect to that structure or concept and forms hypotheses about it. The learner enters the postsystematic

stage of errors when the correct system has been discovered, but may be inconsistently applied for a time. Richards (1974) proposes basic strategies to account for the manner in which learners interact with the TL. Richards again (1980) cites several varied hypotheses to account for the ways in which learners process a second language, all based, to some extent, on the recognition of the value of error.

Those who espouse EA, then, seem to fall into two camps. One group uses the analysis of learners' deviant utterances ultimately to eliminate those deviant utterances. Researchers of this group study the errors produced by groups of learners, optimally with a homogenous linguistic and cultural background in a cross-sectional manner, possibly at points over a period of time (Corder 1971; Ghadessey 1976). Using these results primarily as indicators for the improved planning of materials and only secondarily as indices of the order of difficulty of the acquisition of a TL or as hypotheses about the psycholinguistic strategies of language learning seems productive.

The theoretically oriented group uses EA to study the acquisition process itself by charting the progress of one specific learner and the way in which that learner acquires structures in the TL. The acquisition process can also be studied in a cross-sectional manner by analyzing the errors of a group of learners at varying levels of language proficiency with respect to how successfully the structures under investigation are used at various levels. The assumption is that those structures that show an increase in the rate of success as the proficiency of the learners increases are those that are most easily acquired.

Corder (1973) suggests a blending of the theoretical and the practical when he proposes using the knowledge of how someone learns a language to allow for the creation of an environment where language can be spontaneously learned by students according to their built-in syllabuses. This is an energetic undertaking, to be sure; however, if research of individual learners substantiates the hypothesis that learners with the same MT tend to sequence a TL in the same way, within allowances for individual learning styles and situations, the possibility exists that teaching materials could be optimally ordered so as to allow for the built-in syllabus of a homogenous group.

EA has not been without its critics. Schachter and Celce-Murcia (1977) put forth six reservations concerning the use of EA "as exclusive basis for the development of teaching materials" (p. 441), something Corder warned against earlier. The first of these has to do with the analysis of errors in isolation; that is, focusing only on how the learner misuses a structure and ignoring those occasions when it is used correctly. The second reservation addresses the issue of the "proper classification of identified errors" (p. 445) with respect to the structure in which the error is found. Their third reservation reflects their concern with those EA-based projects that merely point out the frequency of systematic errors in a corpus without regard to the number of times the proposed erroneous forms have been used correctly. To counter this, they suggest the use of relative frequency which is quantified by a fraction whose numerator is the number of times the structure is used correctly, and whose denominator is the number of contexts in which an error could have occurred.

Another problem with EA, as they see it, is concerned with the identification of real points of difficulty of the TL. Here, they point out that "although there may be a great deal of overlap between the difficulty of a given element or structure and its error frequency, there may also be areas of difficulty that are not revealed by a high frequency of production errors" (p. 447). In other words, learners tend to avoid using those structures with which they are not confident, and this avoidance behavior masks the fact that a structure supposedly under control by the learner has not been mastered at all. Suggesting causes of error, especially as to whether they are interlingual or developmental, is the fifth reservation. Schachter and Celce-Murcia suggest that this ascription of causes be done with utmost caution. Along this line, Abbott (1980) points out that an error may be explained in more than one way, as the result of more than one contributory cause. This area becomes even more sensitive when studies are based on a group of nonnative speakers of English with a heterogenous background.

Their sixth and final reservation is labeled "The Biased Nature of Sampling Procedures" (p. 448), in which they claim that researchers "tend to overlook the fact that they may be working with a very limited biased sampling" (p. 448) in the areas of background languages among a heterogenous group, number of subjects, and the number of data samples from any given subject. Further, the sampling is not truly random when, for example, research is done with existing classes of students. They also assert that "the researcher is at the mercy of the subject's lapses, whims, and, perhaps, occasional noncooperation" (p. 449), thereby allowing performance errors to be mistaken for competence

errors, especially when the interviewer has only a casual relationship with the subject.

Schachter and Celce-Murcia's reservations recall my earlier assertion about the nature of the term 'error analysis'. Their concerns are serious and, indeed, valid ones, but are not insurmountable if we view EA as a multi-faceted, multi-layered process of accounting for error. The depth of the validity of their reservations depends on the focus of a particular EA. For example, their first reservation calls for an in-depth analysis of a single error type. The present study, which could be called a reconnaissance mission into the errors made by Korean adults as they learn English, does not focus on any one particular structure, such as the relative clause, but on all the error types presented in the corpus. This focus is appropriate since one purpose of this study is to point out areas that can be further analyzed in later studies. As Hammarberg (1974) points out, EA used in this way serves as "a partial and preliminary source of information at an initial stage of investigation" (p. 191), providing the interesting "repertoire of responses" (p. 192) used to devise elicitation instruments for subsequent research.

Schachter and Celce-Murcia's reservation concerning "the proper classification of identified errors" seems to be concerned with areas beyond the scope of description and into the area of establishing "the point of view of what the learner is trying to produce" (p. 445). Assessing this point of view by a researcher with any certainty, regardless of how sensitive and intuitive that researcher may be, seems to be beyond the scope of what research can do. The prime validity of this reservation, as well as the fifth one which deals with assessing

the underlying cause of error, is that they highlight the arbitrary nature of classifying errors as to their causes and the subsequent caution with which these classifications should be made.

I have heeded Schachter and Celce-Murcia's advice about considering the relative frequency of errors as opposed to absolute frequency. I have attempted to allow for the fourth reservation concerning avoidance behavior by using a technique called Reconstruction, which reconstructs sentences that would otherwise not be considered "English". These reconstructions may provide contexts for structures which the informant may have been trying to avoid. A complete description of this technique is presented in the Methodology chapter.

Schachter and Celce-Murcia's final reservation about the biased nature of sampling procedures is well-taken. It is difficult to conceive how results based on the corpus of six informants is sufficient to tell us anything statistically significant. And one such study of itself will not. But this does not mean that intensive work on a small corpus should be abandoned. Abbott (1980) suggests ways that studies can build on one another when he says that "one major requirement of a process rigorous enough to be called an analysis is that its results should be verifiable by other scholars using the same procedure. In order to be able to do this, they must have access to each other's blueprints" (p. 121). These 'blueprints' are usually absent entirely or, at best, incomplete so that studies cannot be replicated and expanded. Following Abbott's suggestion to provide a detailed methodology and rationale for error classification would enable researchers to build on each other's work and expand the minimal samplings that bother Schachter and Celce-Murcia. I have, therefore, been as explicit

as possible in my sections dealing with methodology and the rationale for the classification of error.

Although in a relatively unmonitored interview situation, where informants are not required to "fill in the blank" on discrete point tests of particular structures, interviewers are indeed somewhat at the mercy of what the informant chooses to produce, the natural language that is produced mirrors competence as well as language produced in more monitored situations. Unfortunately, Schachter and Celce-Murcia do not answer the question implicit in their warning against confusing performance errors and competence errors: How do we test competence except by performance? In this study I have attempted to weed out apparent performance-related mistakes that one finds in an interview situation, such as false starts and self-corrections.

Another focus in the field of linguistic research deals with attempts to determine the existence of a natural order of morpheme acquisition within a single language group as well as across language groups. Studies dealing with morpheme acquisition incorporate a type of error analysis. Whereas researchers involved in EA seek specifically to discover those structures that cause the most difficulty for learners within a language group, researchers conducting morpheme acquisition studies choose a set of morphemes for study with respect to a language group or groups prior to conducting their analysis of errors committed with respect to these morphemes.

Dulay and Burt (1974) studied morpheme acquisition with children, ranging in age from six to eight years, who were learning English as a second language and who came from Spanish and Chinese language backgrounds. Their study was designed to test the hypothesis of a universal

order of morpheme acquisition by comparing the acquisition order of these two language groups with respect to eleven English morphemes (called functors) which do little to convey meaning in a sentence. These functors include pronoun case, article ('a', 'the'), progressive (-ing), contractible copula ('s), plural (-s), contractible auxiliary, past regular (-ed), past irregular, long plural (-es), possessive ('s), and third person singular (-s).

In order to elicit these functors in a natural second language speech setting, Dulay and Burt developed the Bilingual Syntax Measure, a set of cartoon-like pictures with questions designed to elicit certain structures. Following the collection of these natural speech samples, Dulay and Burt performed an error analysis of the eleven predetermined functors. They concluded that the eleven functors were acquired in approximately the same order by both groups of children.

Bailey, Madden, and Krashen (1974) address the question of the existence of a natural order of morpheme acquisition with adults learning English as a second language. Their study focuses on two hypotheses, that the relative frequency of certain English morphemes for adults learning English as a second language will agree and that the ranking of adult learners will more closely match that of children learning English as a second language than that of children whose first language is English. They divided their seventy-three adult subjects, ranging in age from 17 to 55, into two groups, Spanish-speaking and non-Spanish speaking. The non-Spanish speaking group included speakers of Greek, Persian, Italian, Turkish, Japanese, Chinese Thai, Afghan, Hebrew, Arabic, and Vietnamese.

Using the Bilingual Syntax Measure, they analyzed speech samples elicited for plural (-s), progressive (-ing), past irregular, articles ('a', 'the'), contractible copula, possessive ('s), third person singular (-s), and contractible auxiliary. The results of their error analysis of these morphemes support both of their hypotheses. They also conclude that, because of the similarity of the performance of subjects with different first language backgrounds, first language interference does not account for all the errors in second language learning. Also, they support the idea that adult language learners profit from formal instruction and suggest that this instruction more closely parallel the observed order of difficulty.

EA and morpheme acquisition studies are mutually supportive. If a researcher wants to study a certain list of morphemes in a given corpus, then the EA is performed on these morphemes. On the other hand, if a researcher wants to determine the morphemes that are important within a given language group, then the EA is conducted on that group's corpus as a whole to provide the list. Depending on the way the informant group is divided, e.g., into low, middle, and high levels of proficiency in a group with a homogenous language background, the results of EA can be used to determine the extent to which an order of the acquisition of these particular morphemes exists. Thus, the techniques of EA and morpheme acquisition can be used to complement and enrich each other.

CHAPTER III

METHODOLOGY

The corpus of this study is based on taped and transcribed interviews previously gathered for a project in an Applied Linguistics class at George Mason University in the Spring of 1981. Inasmuch as the informants did not come from any single ESL class or language teaching experience and had had varying degrees and types of exposure to English, they fell under Corder's (1973) classification of "non-captive learners" (p. 38). Although the elicitation instrument, a sample of which appears in Appendix A, was originally designed for specific grammatical morphemes, it became apparent that deviant structures were surfacing that did not relate to the morphemes under consideration. The interviews were conducted in a conversational manner so as to approximate natural, relatively unmonitored speech.

Results of a Cloze test given to each informant during the earlier project were used to rank the original informants and to classify them as to low, middle, and high level learners. The scores of the low level group ranged from .06 to .19 of the items answered correctly, the scores of the middle group ranged from .30 to .45 of the items answered correctly, and those of the high level group ranged from .52 to .69 of the items answered correctly. A pilot transcript was chosen from each level for in-depth analysis, and descriptions of these informants are found in Appendix B. I took a working definition

of error to be any ill-formed utterance (IFU) that occurs more than three times. Any IFU occurring less than three times is considered a mistake and is disregarded.

With each pilot transcript, I first listened to the taped interview as I read the transcript. The purpose of this was to familiarize myself with the context of the interview as well as with the subject's overall performance in English. After I felt that the transcript I was using accurately reflected what I heard on the tape, I went over the transcript and marked each IFU. I disregarded false starts and, in the case of self-correction, consistently counted an informant's final attempt to say the utterance correctly, even when an informant changed a correct utterance to an incorrect one.

I then put each IFU through Corder's Algorithm for Providing Data for Description of Idiosyncratic Dialects, found in Figure 1, to that point in the algorithm where knowledge of Korean was needed, after "Is knowledge of the mother-tongue of learner known?". Those IFUs that could not be reconstructed plausibly in English were disregarded.

Ghadessy (1976) gives an example of how to use Corder's algorithm with a sentence that requires the knowledge of the mother tongue (MT) for its reconstruction:

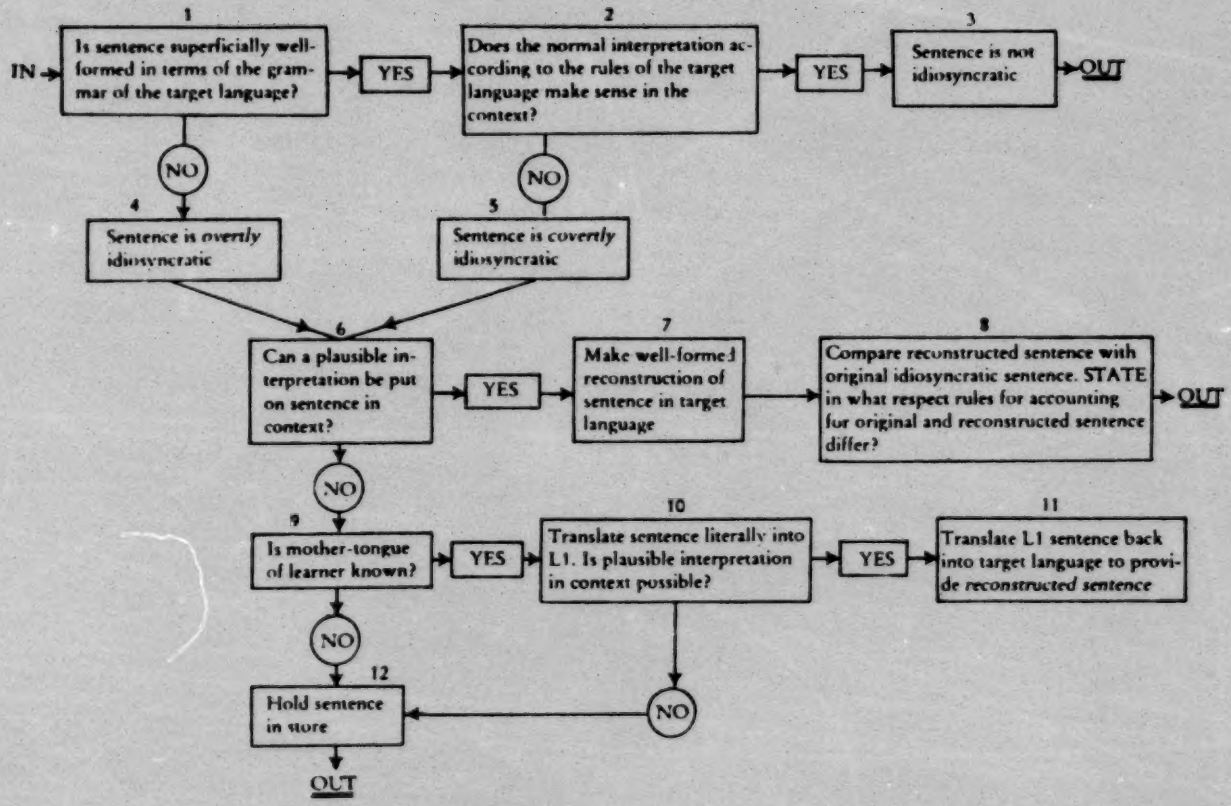
> In my view, it is the best way to collect all the students not to be workless.
>
> IN - 1 - 2 - 5 - 6 - 9 - 10 - 11 - 8 - OUT (p. 78).

Since I cannot speak the MT in question, the sequence for the above sentence in my study would read as follows:

> IN - 1 - 2 - 5 - 6 - 9 - 12 - HOLD.

FIGURE 1

ALGORITHM FOR PROVIDING DATA FOR DESCRIPTION OF IDIOSYNCRATIC DIALECTS
(Ghadessy 1976)



Simple reconstruction usually involving omissions of a required structure and simple word order or lexical anomalies were performed on the transcript itself. Those IFUs requiring more complicated reconstructions were marked for further study after I had completed my second examination of the transcript. I kept the tape available in case I needed to hear any section an additional time. As I was doing this, I was noting areas of interest for further analysis.

Major reconstructions were performed separately from the transcript itself. In reconstructuring the more complicated IFUs, I recognized my responsibility to keep the subject's message while reconstructing the form. Examining a corpus with a preconceived idea of what to look for differs from immersion into the corpus to discover what the data--and, indeed, the language learner that produced it--reveal. Informants reveal more than their linguistic progress with respect to a TL; they reveal something of themselves, their knowledge of the world, and the strategies they use to deal with the TL. In order for my reconstructions to accurately reflect this, I had to become familiar with the interview in order to better share the common ground established by each informant. To be accurate, reconstructions are not simple matters of "how I would say it", but how the informant could have said it in accordance with her intended message, syntactic structure and word usage, knowledge of which is gleaned from the entire course of the discourse.

IFUs cannot be reconstructed in isolation. Reconstructing what informants are attempting to say in their developing grammars of English into that which native English speakers would find acceptable is an arbitrary undertaking, a kind of linguistic mind reading.

However, by keeping in mind how a subject actually said an IFU and by keeping her own words and word order wherever possible and by being conscious of the patterns established elsewhere in the discourse, I have sought to minimize this arbitrariness. In working out major reconstruction, I listened repeatedly to the section of the tape where the IFU was under study to get a feel for the tone of voice and stress, as well as the structures used and the concepts expressed. I then compared the IFU with the reconstruction and listed the changes I had made for possible consideration as error.

The reconstruction being done, I reviewed the lists of IFUs and listed those that occurred at least three times as 'error', I then went over the transcript again, once for each error type. I recorded tabulations on tabulation sheets, samples of which are in Figure 2.

FIGURE 2

TABULATION SHEET

Variation 1:

Context	Present/Correct	
	Yes	No

Variation 2:

Context	Present		Correct	
	Yes	No	Yes	No

These tabulation sheets developed into two variations. The first of these was used with bound morphemes, such as the -s marker for third person singular present, possessive, and plural, whose presence in a required context equals correctness and whose absence equals incorrectness. The second variation was used with those morphemes, such as prepositions, where the presence of the structure in the required context did not automatically guarantee correct usage.

The first variation was used as follows. First, I looked for an obligatory context for a particular morpheme. Then I noted whether the morpheme had been supplied. If the morpheme was present, the fact was noted under "Present/Correct" as "Yes"; if not, it was noted under "Present/Correct" as "No". As mentioned above, the criterion for correctness is the presence of the morpheme in the required context. Occurrences of the morpheme in contexts other than those requiring it were disregarded.

In the second variation of the figure, after the obligatory context was established, the presence of the morpheme was determined. If it was present, this was noted under "Present" as "Yes", and the next decision was whether it was used correctly or not. This result was noted under "Correct" as either "Yes" or "No". If the structure was not present, this was noted under the "No" section of the "Present" column. Here, too, occurrences of a morpheme in contexts other than required ones were disregarded.

From these tabulations, two computations were made. The first, suggested by Schachter and Celce-Murcia (1977), was the Relative Frequency Count (RFC), which reflected how successfully the morpheme under consideration was used. The RFC was determined by dividing the

number of times the speaker used the morpheme correctly by the total number of contexts in which the morpheme was required. The other computation was the Omission Index (OI) which was determined by dividing the number of times the morpheme was omitted by the number of contexts in which it was required.

The need for the OI was suggested by the data itself. The low level pilot informant, Kathy, showed many instances of omitting sentence parts. To account for this phenomena, I decided that setting up an OI to quantify the percentage of time that a sentence element was required, but did not appear in any form, would be more descriptive than the RFC. This index was ultimately applied to any area where a morpheme could be attempted, but used incorrectly. Only actual omissions were included in this index. Thus, if the informant attempted a morpheme, but was unsuccessful, that form was counted as present, but incorrect. In using this index, I wanted to look at the extent to which outright omissions of morphemes determined the noncorrectness of forms, as reflected in the RFC. I also wanted to find out if a decrease in the rate of omission, indicating that informants were attempting to use morphemes before they used them correctly, preceded a rise in RFCs. This would reflect an informant's dawning perception of a need for a certain morpheme prior to the accomplishment of successful performance, a situation reminiscent of Corder's idea of presystematic error.

Following the analysis of the pilot transcripts came the next step, the establishment of a comprehensive list of errors for which the three follow-up transcripts, one from each level, would be analyzed. In addition to my initial criterion for considering a feature an error rather than a mistake, i.e., if it appeared incorrectly at least three

times in a mistaken form, I found it necessary to require an arbitrary minimum of ten contexts for a feature in order to justify its inclusion in an informant's list of errors. After making a list of the errors for each pilot without regard to the number of contexts, I composed an informal master list of all the errors analyzed in the pilot transcripts and proceeded to analyze the pilot transcripts for any error not originally noted. Thus, each of the three transcripts was analyzed for every error found in any of the three transcripts individually, the results of which are in Appendix C.

In attempting to make up a master list that would be used to analyze the remaining transcripts, I did the following. First, I listed the errors analyzed in each pilot transcript ordered, from the most successfully used to the least, without regard for the number of contexts. I then compared these rankings, which, in the case of those features where the contexts were minimal in one or more of the transcripts, proved to be misleading because the rank order of the morphemes shifted when those morphemes with less than ten contexts were deleted. In those categories where one of the three informants failed to produce the requisite number of ten contexts, I anticipated that the additional transcript at that level would produce enough contexts to total more than twenty for the two informants at that level so I could include that morpheme in this study. I wanted to analyze the additional transcripts for the Past Regular -d, Possessive 's, Third Person Singular -s, and the Contractible Auxiliary, none of which had been produced in the required number of ten contexts in one of the three pilot transcripts. By doing this, I hoped to find enough contexts for each of these morphemes in the additional transcripts to warrant

keeping the morpheme in the study. (Unfortunately, this situation did not materialize, and these morphemes were subsequently deleted.) The results of these revised lists are in Tables 4, 5, and 6 in Appendix D.

Following the establishment of the master list, I selected three additional informants. The informants in the pilot transcripts are Korean women who had received their initial English language training in a Korean educational setting. I chose the additional informants at each level with this in mind. These three informants are also post-college-age women who had received their initial language training in Korea. Most of the other informants in the earlier study which produced the data from which the data for this study were taken did not meet these criteria. I did not choose to study informants who were high school students whose English language training had been in ESL classes in the United States. If the existence of an order of morpheme acquisition had already been established for Korean adults, the mixture of informants with varying backgrounds would not matter. However, since this study is an investigation into the possible existence of such an order, I chose to make the background of my informants as homogenous as possible, given the informant population from the earlier morpheme acquisition study.

This decision to preserve the homogeneity of the backgrounds of the informants whose data I analyzed limited the choices I could make with respect to the data collected in the previous study. My original plan had been to analyze the data of an additional informant at each level and then produce a composite list of errors at each level. These composite lists would then have been the basis for comparison of the order and nature of errors that Koreans make at each level. I was able

to find an informant at each level who fit the background criteria mentioned and analyzed their data for the morphemes in Table 4. However, following the analysis of the data provided by these three informants, Kay, Vivian, and Elaine, the results of which are found in Tables 7, 8, and 9 in Appendix E, it became apparent that the data produced by the low-level informant, Kay, did not appear to fit the low level. She equaled or surpassed the middle pilot informant in 73 percent of the categories analyzed. The inclusion of her data in the low-level composite caused it to surpass the middle-level composite in 45 percent (5/11) of the categories and to equal, within .05 point in the RFCs, in 36 percent (4/11) of the categories. The middle-level composite only surpassed the low-level composite in two out of the eleven categories ultimately analyzed. Kay's data did not belong in the low level and thus had to be deleted from this study.

This deletion of Kay's data from the low-level composite presented a problem inasmuch as the remaining informant in the low-level group who was available for analysis had only scored .06 on the Cloze test and, furthermore, did not fit the criteria I had determined with respect to background. I was, therefore, forced to allow Kathy's data to stand alone as representative of the low-level group. Inasmuch as the pair of informants in the other two levels balanced each other, I used the composites of their data at the middle and upper levels. In referring to the individual informants, I have used names typed in lower case (Kathy for the low level, Mary Jean and Vivian for the middle level, Ruth and Elaine for the high level). For the composite representative, I have used names typed in upper case (KATHY for the low level, JEAN for the middle level, and RUTH for the high level).

Following these analyses, I compiled the data for the pilot transcript and the additional transcript at the middle and high levels. In determining the RFC composite for each morpheme, I added the number of contexts of the morpheme for each pair of informants, as well as adding the number of times the morpheme was correctly used. I then divided the number of times the feature was correctly used by the number of contexts to determine the composite RFC. The same procedure was used in determining the composite RFC for each morpheme for all the informants when I compiled the list of morphemes ranked according to difficulty (the second research question). The same procedure was followed in determining the composite OIs at each level. The results of these composites are found in Tables 10, 11, and 12 as found in Appendix F.

Because of the nature of the data I have been analyzing, as discussed earlier in this section, there are gaps in the list of errors that formed the basis for comparison across levels. It has not always been possible to group together features that would have sensibly been grouped together because one or more of the features did not occur in sufficient contexts and had to be discarded. For example, in the case of the verb BE, both the Contractible Copula and the Contractible Auxiliary were examined; however, the data of the middle and upper level informants failed to produce sufficient contexts for the Contractible Copula, forcing its deletion from the error list. I had also hoped to analyze the bound morpheme _-s_ in its three functions as marker for the third person singular present, possessive, and the regular plural for their relationship to each other with respect to their comparative ease of acquisition, as well as the comparison of these _-s_

morphemes with the other morphemes in the study. However, insufficient contexts in two of the three levels for the third person singular present tense marker, and in all three levels for the possessive marker, forced the abandonment of this stage of the analysis. I had also hoped to compare the third person singular present -s with the third person irregular, and the past regular marker -d with the past irregular forms, to see what observations could be made about the relative success of the regular over the irregular form. Once again, insufficient contexts in the regular forms prevented such a comparison.

CHAPTER IV

RATIONALE FOR AREAS ANALYZED

Each error was analyzed according to its own rationale. Once these rationales were established, each pilot transcript was analyzed accordingly. The most extensive of these areas deals with verbs. Verbs were analyzed within the following categories: BE, including the contractible copula and the contractible auxiliary; Lexical; Modal and Non-copula, non-modal auxiliaries (DO and HAVE). These last two categories were deleted because of insufficient contexts in the pilot transcripts.

Underlying the analysis of the various verb forms was the notion of the context of the time frame of the discourse in which the utterance under consideration occurred. This time context was established before any other analysis was undertaken and was the basic criteria for correctness. For example, present tense verbs that were used within a context that required past tense forms, by virtue of the fact that the discourse was concerned with events that took place in the past, were judged to be incorrect, even though their form may have been considered correct in a time reflecting the present. Conversely, correctly inflected past tense verb forms inappropriately used in a present context were considered incorrect.

BE

BE was divided into two areas, the contractible copula (BE + noun; BE + adjective) and the contractible auxiliary (BE + verb + ing). After the determination of the context for the BE verb with respect to syntactic structure, the next question addressed was whether a form of BE was present. If the answer was yes, then the form was judged to be correct or incorrect with respect to proper inflection for agreement and tense. If the answer was no, as in the case of an inappropriately used lexical verb or a complete omission, this was noted as not present. Tabulations for RFC and OI were then computed. Examples of errors with BE include:

I is a woman.
I a woman.
They is happy.
They happy.
He are working.
He working.

LEXICAL VERBS

A similar procedure was followed for the analysis of lexical verbs, which are those verbs, such as 'run', 'play', 'laugh', etc., which carry meaning. After the context for a lexical verb was determined, the question of the actual presence of such a verb was addressed. If the answer was yes, the form was evaluated for correctness. Lexical verbs were considered incorrect when lexical verbs that should have been inflected were not and, conversely, when lexical verbs that should not have been inflected, as in the case of the lexical verb in a negated verb phrase where there is no progressive, were inflected. Using a lexical verb that reflected a meaning different from that which the

speaker intended, based on an analysis of the context of the discourse and the topic under discussion, was also considered incorrect. In those cases where a lexical verb was required, but was not present because of inappropriate copula usage or direct omission, the error was noted as "No" in the "Present" column. In this situation, the incorrectness due to omission or incorrect copula usage was reflected in the error's failure to appear as correct for the RFC tabulation; its notation under the negative side of the present column was reflected in the OI.

Contexts that required lexical verbs to appear with auxiliaries of various forms were analyzed in two contexts, one concerning the correct use of the auxiliary and one concerning the correct use of the lexical verb. For example, in the verb phrase "can play", if the context is present, the modal auxiliary 'can' is analyzed in the category Modal Verbs as both present and correct, and the lexical verb 'play' is analyzed under the category Lexical Verbs as present and correct. In the pilot transcript of the middle-level subject, Mary Jean, there were occasions where she repeated the subject and verb after the direct object in the pattern, S V O S V. These repetitions were disregarded for purposes of the analysis of verb usage. Examples of errors with lexical verbs include:

> I eat dinner alone last night.
> He did not came on time.
> You working doing (in response to the Interviewer's question about what she was doing with her pencil).

The procedure used with the balance of the verb categories Modal Verbs and Non-copula, non-modal auxiliary Verbs was similar to that discussed with the BE and Lexical Verb categories. However, insufficient contexts caused the deletion of both categories.

DETERMINERS

Determiners were divided into three categories for analysis: the Determiner 'the', the Determiner 'a', and Non-article Determiners. The difficulty that nonnative speakers of English have in using the article system of English is common knowledge among English language teachers, but I did not notice a similar difficulty among my three pilot Korean informants with respect to the non-article determiners. I wanted to see how these informants fared with article determiners as opposed to non-article determiners. These non-article determiners, as delineated by Quirk and Greenbaum (1973) include 'many', 'this', 'that', 'some', 'no', 'any', 'every', and the possessive pronouns. For this category there were contexts where a non-article was attempted, but used incorrectly, so the tabulation for the OI was made. For the Determiner: 'the', the presence of 'the' in the required context equals correctness, so the OI was not tabulated. Since the article 'a' can be realized as 'a' or 'an' depending on the sound following it, I originally analyzed Determiner: 'a' for omissions as well as correctness. However, there were no contexts in any of the six transcripts analyzed where the context for 'an' appeared. Because of this, the OI did not seem useful, so I did not include it in the lists of results. Examples of Determiner errors include:

I work at Circle Beauty Shop.
I think history of Korea is interesting.
He gave me this books.

PREPOSITIONS

Prepositions were analyzed only in the context preceding nouns or pronouns as opposed to the context where 'to' is required before an infinitive or as part of a verb. To be counted as correct, the preposition had to be present in the required context and had to be lexically correct. Superfluous prepositions were disregarded. Examples of preposition errors include:

My husband work on the hospital.
I study English at Korea.

PERSONAL PRONOUN USAGE

The decision as to whether a context required a noun or personal pronoun, except in the case of first or second person pronouns, was not always straightforward. For example, in response to "either/or" questions or Wh-questions, native speakers often respond with the phrase that immediately answers the question rather than answering in a full sentence. I granted this leeway to my informants. However, I considered as context for a pronoun, situations where there were several adjectives or noun phrases juxtaposed about the same person or situation. Following the determination of the context, these forms had to be properly inflected for person, gender, case, and number in order to be correct. Any deviation in these areas counted as an incorrect form, and no attempt was made to distinguish between types of errors within this category. Examples of errors with personal pronouns include:

My husband working construction. She doesn't like American style breakfast.
Me and my kids like the United States very much.

BOUND MORPHEMES

The errors that involved a bound morpheme include the -s morpheme for regular plural, possessive, and the third person singular present tense verb, the -d morpheme for the regular past tense verb, and the -ing morpheme for the progressive verb and verbal forms. These were analyzed within the criterion that to be present in the required context is to be correct. Therefore, omissions were counted as both absences and errors, and the OI does not apply. Examples of these omissions include:

My boy only like read a lot of book.
They are Donald skis.
Last night I talk to my friend.
I am talk now.
She had a smile face.
Study English is important.

In the pilot transcripts, the -ing morpheme was analyzed with respect to its three functions as marker for the progressive form of the verb, as in "BE + verb + ing", the marker for the adjective participle, as in "writing paper", and marker for the gerund, as in "studying English is important". The progressive and adjective participle forms were deleted in the pilot stage of this investigation because of insufficient contexts. Although sufficient contexts for the gerund did appear in the data of both middle and upper level informants, this item was deleted from consideration because the gerund forms that did appear were not those actively produced by the informants. They used words such as 'jogging' and 'swimming' which are learned as lexical items and, as such, are not examples of active gerund formation.

NEGATION

An area that appeared to be developing in the middle level informant Mary Jean's data was Negation. Negation was analyzed in verb phrases; short answers involving the negative were disregarded. Inasmuch as the informant's view of reality determined the context for Negation, the OI did not apply. To be counted as a correct instance of Negation, the following criteria had to be met. The appropriate auxiliary, properly inflected, had to be present along with 'not' and an uninflected lexical verb, unless the lexical verb was inflected for the progressive, all in the proper order. The errors within Negation were not analyzed as to type. Examples of Negation errors include:

We are not never speak.
He no like America.
She does not going to school.

THIRD PERSON SINGULAR IRREGULAR

This category includes a small set of verbs which do not use the morpheme -s to indicate the third person singular present tense status of the subject. They include DO, BE, and HAVE. Although BE has been analyzed under a separate category, it is included here to analyze how the informants use it, as well as the other verbs mentioned, with respect to "third person singleness" and to compare the relative difficulty with the third person singular form realized by -s. The OI is computed because an irregular form can be attempted but incorrectly applied. Examples of third person singular irregular include:

He do not like working construction.
My son are a good student.
She always have a lot of homework.

IRREGULAR PAST

The pilot transcripts were analyzed with respect to the irregular past tense forms, excluding forms of BE. In order to be counted as correct, the verb had to be properly inflected to a required past context. Because it was possible to attempt a past form, but to do so incorrectly, the mere presence of the form was not sufficient for correctness. Therefore, the OI was tabulated. Both regular past and irregular past forms were analyzed so that their relative difficulty could be compared. Examples of errors with the irregular past include:

Last night I make dinner for my family.
My son tear his clothes yesterday.

SENTENTIAL ELEMENTS

Early in the examination and analysis of the low-level informant Kathy's data, it became apparent that sentence parts were missing; she seemed to juxtapose content words, deleting structure words as if the context set by the Interviewer's questions and this juxtaposition of content words was sufficient for her to communicate her ideas. Examples of this situation include:

Interviewer: Does your mother live with you?

Informant: Oh, my husband . . . mother-in-law.

Interviewer: Do you like a big family?

Informant: Sometimes I like, sometimes big trouble.

Because of this, I decided to analyze the data with respect to the frequency with which the sentential elements, S, V, and O, were used as required. In doing this, I allowed the same leeway for short answer fragments that are common in conversation. But there were

still instances where the context required complete sentences, such as, when the informant introduced a topic or was elaborating an answer. I was not concerned with the correctness of what the informant attempted to say in the S--V--O positions but rather with the attempt itself.

NEGATIVE FORMS OF DECLARATIVE QUESTIONS

A feature that appeared frequently enough in the middle-level informant Mary Jean's responses to warrant attention was her responses to negative forms of declarative questions, similar to the tag questions where the statement is negative and the tag is assertive, thus indicating the anticipation of a negative response. An example of this comes in the discussion of the Korean idea of male superiority when the Interviewer, after ascertaining that this idea is not changing, states the following:

Interviewer: Oh, so that's not changing?

Informant: Yes.

In tabulating the RFC for this, I focused on the positive nature of the response by the informant where a negative response would have been expected by a native speaker of English. Therefore, any other deviations made in those responses were disregarded. The low-level informant Kathy's data revealed insufficient contexts, so this feature was deleted.

INFINITIVE USAGE

Another area that seemed interesting to investigate in the data of the middle-level informant Mary Jean and the high-level informant Ruth was their use of the infinitive. However, because of an

insufficient number of contexts in two of the three pilot transcripts, this category was deleted. Examples of infinitive usage errors include:

It's hard remember.
I want teach.
They try be nice.

CHAPTER V

RESULTS

Based on the data provided by the Korean informants analyzed, the errors which occur most often in the oral production of Korean adults learning English (the first research question) are listed on Table 13. These morphemes include Determiners ('a', 'the', and non-article), Personal Pronouns, Prepositions, Negation, Verbs: Lexical, Third Person Singular Irregular, Past Irregular, Verbs: Contractible Copula and Plural -s.

In order to answer the second research question concerning the order of difficulty for the total informant group, the rank ordering for these morphemes for the total group was determined by adding the number of correct responses for all five informants for each morpheme and by adding the total number of required contexts. The total number of correct responses was then divided by the total number of contexts to produce a composite RFC for each morpheme. These were then ranked according to the RFCs from the highest to the lowest, reflecting the easiest morpheme to the most difficult. The results of these computations are also found in Table 13.

The third question addressed in this study was concerned with the extent to which an order of accuracy of these morphemes exists among the three composite informants. Kendall's Coefficient of Condordance was performed to compare the rank order of accuracy of the

TABLE 13

KOREAN INFORMANT COMPOSITE

			RFC
1.	Determiner: Non-article	194/224	.87
2.	Personal Pronouns	428/523	.82
3.	Third Person Singular Irregular	88/124	.71
4.	Verbs: Lexical	293/487	.60
5.	Prepositions	166/280	.59
6.	Negation	61/107	.57
7.	Verbs: Contractible Copula	122/216	.56
8.	Plural -s	86/156	.55
9.	Determiner: 'a'	52/101	.51
10.	Past Irregular	58/124	.47
11.	Determiner: 'the'	43/96	.45

eleven morphemes for the three composite informants. According to this measure, there is a significant correlation between three rank orders of accuracy at the .01 level. This finding supports the hypothesis that there exists a natural order of difficulty of English structures for Korean learners.

While the three orders of accuracy are similar at a highly significant level, observation of the data found in Table 14 reveals that, in certain categories, shifts in ordering exist between levels and that, in other categories, no apparent agreement exists at all. Before analyzing these discrepancies, two concepts about the ways in which morphemes are learned need to be presented. The first of these ideas is called "chunk learning", a term put forth by H. D. Adamson (1982a) of George Mason University to describe those morphemes which have to be learned separately and distinctly as separate forms. The term 'learning' is not to be confused with the term 'memorize'; learning is used here more in the linguistic sense of 'acquire'. Examples of morphemes learned as "chunks" as found in this study's list of morphemes are the non-article determiners, personal pronouns, prepositions, lexical verbs, third person singular irregular, past irregular, and contractible copula. A language learner has to learn the members of one of these categories, e.g., personal pronouns, as distinct "chunks" since there is no linguistic rule that predicts the change of the subject pronoun 'I' to the object pronoun 'me'. Past irregular forms as well as third person singular present irregular are not predictable by rule and must be learned separately as "chunks". The number of "chunks" within a category can be small, as it is in the third person singular present irregular category, which includes 'is', 'does', and

TABLE 14

COMPOSITE COMPARISON TABLE

ERROR	KATHY	RFC	OI	JEAN	RFC	OI	RUTH	RFC	OI
1. Determiner: Non-article	32/37*	.86	14%	(1) 65/80*	.81	9%	(2) 97/107*	.91	9%
2. Personal Pronouns	48/87	.55	34%	(2) 189/232	.81	16%	(1) 197/204	.94	4%
3. Preposition	26/52	.50	46%	(9) 37/103	.36	58%	(6) 103/125	.82	16%
4. Negation	6/14	.43	N/A	(6) 26/59	.44	N/A	(4) 29/34	.85	N/A
5. Verbs: Lexical	28/70	.40	19%	(4) 136/227	.60	9%	(9) 129/190	.68	2%
6. Third Person Singular Irregular	10/26	.38	46%	(3) 35/51	.69	31%	(3) 43/47	.91	2%
7. Past Irregular	7/19	.37	58%	(11) 14/45	.31	53%	(10) 37/60	.62	35%
8. Determiner: 'the'	4/12	.33	N/A	(8) 17/42	.40	N/A	(11) 22/42	.52	N/A
9. Plural -s	8/25	.32	N/A	(10) 16/49	.33	N/A	(8) 62/82	.76	N/A
10. Verbs: Contractible Copula	8/33	.23	70	(5) 50/105	.48	33%	(5) 64/78	.82	8%
11. Determiner: 'a'	1/19	.05	N/A	(7) 15/36	.42	N/A	(7) 36/46	.78	N/A
13** Possessive -s	0/4	.00	N/A	13** 2/13	.14	N/A	9** 12/16	.75	N/A
2** Past Regular -d	3/4	.75	N/A	11** 9/29	.31	N/A	12** 16/25	.64	N/A

KEY: * # Correct/# Contexts

** Indicates the relative order had the item been left in the error list.

RFC Relative Frequency Count

OI Omission Index

'has', or extensive, as it is in the lexical verb or preposition categories. All of the members of these groups have to be learned separately, since no rule exists that predicts the lexical form of one verb or preposition over another.

The second of these concepts deals with the learning of those morphemes that are the result of a productive rule. In this study, examples of this type of morpheme include the plural -s and, for the middle and upper level, the past regular -d. Other examples, such as the possessive 's and the third person singular present -s were deleted because of insufficient contexts. Since the presence of these morphemes is predictable by rule, they do not have to be learned as "chunks". By having acquired the rule, a learner is able to produce the correct form of a morpheme in a given context.

Some of the morphemes in this study's list do not fall neatly into either category. In accordance with the criteria established for Negation, this category entails both "chunk learning" in the need for the properly inflected auxiliary and productive rule learning in the requirement for the word ordering (Aux + 'not' + Lexical verb) and the appearance of DO as auxiliary in cases of simple negation not involving a modal or form of BE. Articles are rule-governed, but the rules are complicated, and a grammar of the article system of English has yet to be written.

These two concepts, "chunk learning" and productive rule learning, are useful in providing explanations for the ranking of certain morphemes over others and the shifts apparent in the results given in Table 14 with respect to certain morphemes across the levels. Heading the order at either first or second position for all three levels are

Determiner: Non-article and Personal Pronouns. Both of these categories exemplify morphemes that are learned by "chunks". It may be that "chunk learning" is easier than productive rule learning, especially when the number of "chunks" in a category is not extensive. This would explain the apparent ease with which these Koreans learned the non-article determiners and personal pronouns, as opposed to other categories on the list.

Unfortunately, because most of the examples of morphemes requiring productive rule learning were deleted due to insufficient contexts, the plural -s and the past regular -d are all that remain. Both of these morphemes rank below those morphemes that fall under the category of "chunk learning", supporting the hypothesis that "chunk learning" tends to precede production rule learning. However, when we compare the past regular -d for JEAN and RUTH with the past irregular, we can see that, with respect to RFCs and rank order, these two categories are essentially the same, and both categories are at the bottom of the order. This piece of evidence seems to indicate that "chunk learning" is not as successful with the irregular past. Perhaps this is because, unlike pronouns and non-article determiners, the number of irregular past "chunks" that must be learned is extensive, and "chunk learning" is more successful when the number of "chunks" is not as extensive as the number of irregular verb forms in English. Another explanation, suggested by Adamson (1982b), is based on the way in which children learn the English irregular and regular past. In the early stages, children's irregular past usage is more accurate than their regular past usage; they learn the "chunks" before they learn the rule. However, as the regular past rule emerges, accuracy with the

irregular past drops sharply as the children "overgeneralize" the productive rule. My data suggests that my informants are doing the same thing.

Another shift in ordering is seen in the drop in the order of accuracy for Verbs: Lexical for RUTH. Whereas KATHY and JEAN ranked Verbs: Lexical at fifth and fourth, respectively; this category dropped to ninth for RUTH. At this level, RUTH is more successful with the Plural -s than with Verbs: Lexical. It can be suggested that the productive rule governing plural formation is becoming more psychologically real for RUTH and that the extensive number of "chunks" that must be learned in the category Verbs: Lexical has overridden any advantage "chunk learning" had over productive rule learning at lower proficiency levels.

However, looking at the category Third Person Singular Irregular and Verbs: Contractible Copula, we see counter evidence to the idea that "chunk learning" is easier than productive rule learning, if there are not too many "chunks". The category Third Person Singular Irregular is made up of the "chunks" 'is', 'does', and 'has', and has fewer members than the category Prepositions which KATHY ranks at the third position, with Third Person Singular Irregular ranking sixth. If "chunk learning" is supposedly easier when the number of "chunks" is fewer, why was KATHY not more successful with Third Person Singular Irregular than with Prepositions, especially in view of the fact that both JEAN and RUTH ranked third in Third Person Singular Irregular?

A possible explanation is that found by looking at the OI. KATHY omitted a required third person singular form 46 percent of the

time. She was apparently unaware that the form was required. Omissions play an even greater role in KATHY's ordering of Verbs: Contractible Copula, where KATHY omitted the contractible copula 70 percent of the time. This observation is significant because the third person singular contractible copula 'is' played a predominant role in the category Third Person Singular Irregular. While KATHY may have known the "chunks", she did not seem to understand where they were needed. One possible explanation for this failure to recognize the need for the copula can be found in Korean. Korean has a verb like the copula which functions as identifier, as in "the girl is my daughter". However, the copula which functions as a link between the subject and predicate adjective, as in "the boy is happy", does not exist as a separate word in Korean. Instead, the copula is incorporated in the lexical form of the descriptive verb, as in 'to be happy', 'to be beautiful', and 'to be difficult'. Although the specific causes of error and omissions made with respect to the contractible copula were not analyzed, it is possible to assert that KATHY was not aware that the contractible copula was required as a link between the subject and the predicate adjective. Therefore, KATHY may have omitted 'is' on those occasions, thereby reducing the RFC in this category. The jump in JEAN's and RUTH's ordering to fifth position provides evidence for their increasing awareness of the need for the contractible copula in both contexts, as well as evidence that "chunk learning" tends to be more successful than productive rule learning.

The category Determiner: 'the' and Determiner: 'a' form the basis for some interesting observations and speculations in their own right. A hypothesis exists that learners of English as a second

language whose first languages do not have an article system, such as Korean, make several hypotheses about the English article system as they are confronted by it (Adamson 1982a). The first of these is that no articles exist, and so they use neither 'a' nor 'the'. No evidence of this is found in this study. The second learner hypothesis is that all the articles in English are 'the', and 'the' is produced to the exclusion of 'a'. There is evidence to support this in KATHY's data where the successful use of 'a' with an RFC of .05 is practically nonexistent, while the use of 'the' has an RFC of .33. The third learner hypothesis is that both articles exist. This can be seen in JEAN's data where the determiners 'a' and 'the' are ranked next to each other, though 'the' continues to be used more accurately at RFCs of .42 and .40, respectively.

RUTH's data shows that, at the advanced level, 'a' seems to be easier than 'the', and the ordering of 'a' and 'the' is almost exactly opposite that of KATHY's data. Whereas 'the' ranked eighth and 'a' eleventh for KATHY, 'the' ranked eleventh and 'a' seventh for RUTH. As reflected in the RFCs, RUTH is more successful at using both articles than KATHY and JEAN, even though the rank order does not correlate. Article acquisition is taking place, as RUTH's RFCs indicate. Adamson (1982b) suggests an explanation to account for the switch in ordering for 'the' and 'a'. Once learners have acquired the basic uses of 'a' and 'the', they must deal with exceptions and idiomatic usage. Adamson suggests that 'the' is more idiomatic, that is, less regular, than 'a' and that learners have to deal with more exceptional uses with 'the'.

A category for which I have no adequate explanation is that of Prepositions. As an example of a category requiring "chunk learning",

we might expect Prepositions to be a highly successful category, and for KATHY, this appears to be the case. However, like the category Verbs: Lexical, and unlike the category Personal Pronouns, there are many "chunks" in the category Prepositions for a learner to acquire, and so we could expect preposition acquisition to be difficult. My results seem to indicate that neither of the above is true across levels. In this category, my informants insisted on being individuals, and perhaps this individuality could be overridden by the inclusion of more informants at each level.

An informal suggestion as to why JEAN's success rate with prepositions was lower than that of KATHY and RUTH can be found in the responses of one of the two informants at this level, Mary Jean. Mary Jean's RFC for Prepositions was much lower than her counterpart, Vivian. An explanation for this may be found in the manner in which her interview was conducted. I noticed that she seemed eager to talk, and the Interviewer allowed her the freedom to express herself when she wandered away from the elicitation question at hand. In doing so, Mary Jean became involved in topics that went beyond her linguistic capability, e.g., the difficulties faced by Korean housewives who want to work outside the home in getting jobs. She left the relative safety of the structure provided by the Interviewer's questions to try out her "linguistic wings" and ran the risk of producing more errors.

The success with which KATHY and RUTH handled this category, as indicated by its ordering with respect to other linguistic items, surprised me. I had suspected that their success with preposition usage would have been lower. However, prepositions are salient, and their omission or misuse is readily apparent in the production of a

nonnative speaker by a native speaker. Because of this, perhaps native speakers, myself included, think that Korean speakers of English are less successful with prepositions than is actually the case.

The category Sentential Elements, the results of which are found in Table 15, was included as an informal survey of the frequency with which certain sentence elements, S, V, and O, appeared in the informants' data. (I also analyzed the data for the omission of the complement, but it was never omitted.) As established earlier, correctness of form was not an issue here but rather whether an element appeared where required. With the exception of the discrepancy between the OI of KATHY's object and that of JEAN's, there is a decrease in the OI across levels for subject and verb. A possible explanation of KATHY's 24 percent OI as opposed to JEAN's 28 percent OI may be the smaller number of contexts produced by KATHY and the fact that KATHY relied more on the structure set up by the Interviewer. The drop in OI for all three elements between JEAN and RUTH is dramatic. One thing that seems to mark proficiency is this reduction of OI, signaling that the informant is more aware of what English requires with respect to these sentence parts.

TABLE 15

SENTENTIAL ELEMENTS

Low Level			Middle Level			High Level		
Kathy			Mary Jean			Ruth		
Subject	29/110	26%	Subject	44/189	23%	Subject	5/143	3%
Verb	46/120	38%	Verb	33/189	17%	Verb	2/157	1%
Object	6/25	24%	Object	24/66	36%	Object	1/63	2%
Kay*			Vivian			Elaine		
Subject	12/175	7%	Subject	5/110	5%	Subject	5/116	4%
Verb	16/179	9%	Verb	10/113	9%	Verb	3/125	2%
Object	9/74	12%	Object	7/43	16%	Object	0/29	0%

*Data deleted.

KATHY			JEAN			RUTH		
Subject	29/110	26%	Subject	54/299	18%	Subject	10/259	4%
Verb	46/120	38%	Verb	43/302	14%	Verb	5/282	2%
Object	6/25	24%	Object	31/109	28%	Object	1/116	1%

CHAPTER VI

CONCLUSIONS

A major hypothesis behind this Error Analysis has been that of the existence of a natural order of morpheme difficulty for Korean adults. My efforts to establish such an order have been frustrated, to some extent, by the gaps in the list of morphemes in the informants' data. However, based on the morphemes that these informants did provide, it has been shown statistically that an order does exist. The categories of Determiner: Non-article and Personal Pronouns ranked in almost the same position across levels as did Negation and the Plural -s. Six other categories exhibited essentially the same rank order in two of the three levels. The categories Verbs: Lexical and Determiner: 'the' showed essentially the same rank order for the low level and middle level, while the categories Past Irregular, Third Person Singular Irregular, Determiner: 'a' and Verbs: Contractible Copula had essentially the same rank order between the middle and high level informants. In the category Prepositions, where the discrepancy between the levels was the greatest, I have offered explanations for it.

An early intuition concerning the role of omission in the cause of error seems to have been validated. As the OI dropped, the RFC rose; this situation need not have been the case. The informants could have used the forms--thereby not omitting them--in an incorrect manner. This did not appear to happen. As they used a particular structure

more, they used it more successfully. This suggests that a clear idea on the part of a learner that an obligatory context exists for a morpheme is a prerequisite to the attempted use of it.

Another area that these results tend to validate is the use of the Cloze test as a means of determining language proficiency. This validation is clouded by the misplacement of Kay in the low level, instead of the upper part of the middle level where her RFCs indicate that she belongs. However, it is possible that an investigation of her background would reveal nonlinguistic reasons for her poor showing on the Cloze test relative to her RFCs. For example, since the Cloze test was administered by the Interviewer at the time of the interview wherever it was conducted, perhaps Kay was distracted while taking the Cloze test.

As mentioned in the Review of the Literature, EA is useful in both the theoretical and applied areas of linguistics. This EA should be no exception. However, determining pedagogical implications is not an easy task, not because implications cannot be found, but because once they have been found, interpretations about what to do with them vary. In the case of the Korean speakers in this study, the highest success rate is found in the categories of Determiner: Non-article and Personal Pronouns. These two categories, then, seem to be acquired/learned earlier and with greater ease than, for example, the third person singular -s or the article determiners. So, what should teachers do with this information? Should they present personal pronouns and non-articles early, so the students can have early success in English before moving on to the less easily acquired morphemes? Or should teachers present the more difficult material, figuring that it will take

longer for the students to acquire/learn them and that they will pick up the non-articles and pronouns anyway? Fathman (1977) recognizes this quandry when she says that "it remains unclear whether teachers should emphasize those structures which have been reported as difficult for the learner in a 'natural setting', or whether they should align teaching sequences with reported sequences to take advantage of the learner's natural tendencies" (p. 36). She suggests that it should not be the simplicity of the structure that determines the order of its presentation but rather its meaningfulness to the student, asserting that emphasizing what the student considers redundant and irrelevant may do more harm than good.

The key piece to this puzzle is meaning. The results of this study seem to illustrate the tendency of these Korean speakers to be more successful with categories that carry meaning--and whose misuse would more likely result in miscommunication--than those categories dealing with the redundant features of English, such as the article determiners and the -s morphemes. Fathman (1977) claims that "the establishment of a meaningful language environment is probably the most important key to successful language learning" (p. 37). In this light, it could be argued that identifying and knowing the order of difficulty for a language group serves no purpose. However, knowledge of such an order enables teachers to set up situations where these forms are required by the students for communication. Students must use these forms, such as personal pronouns or the possessive -s, in the context of communication.

The question of whether to concentrate on the more successfully used morphemes, or to tackle the more difficult ones first, arises

again. Teacher attitude toward the order of difficulty for Korean adult language learners suggested by this study is important to consider when addressing this issue. Structures should not be "checked off" from either end of the order; this study's morpheme difficulty is a guide to what these Korean speakers find difficult, and not a syllabus of structures to be mastered. Actually, none of these structures exists in a vacuum, and students will be exposed to any number of them while a communicative activity focuses on one of them. Knowing what may prove difficult, and the possible causes of that difficulty, can enable a teacher to offer an explanation that could help a student create meaningful hypotheses about the TL. Because the focus of this study has been the discovery and classification of errors, and not an in-depth study of any one error type, possible causes of error have been dealt with at the intuitive level. However, several areas for study have been suggested throughout this study.

Care must be taken not to ignore the more redundant or less meaning-bearing aspects of English, however. While features such as the -s morpheme in any of its realizations or the ubiquitous articles may not serve the meaningful expectations of students (as Fathman suggests), failure to address these features early in the communication process can contribute to a fossilization in their usage. While this fossilization does not necessarily hamper communication, these forms are, to some extent, stigmatized. Native speakers do not normally delete the -s morpheme or an article, and for nonnative speakers to do so marks them as nonnative, pronunciation notwithstanding.

This study has been a first step into the world of adult Korean English, but it has been an important one. Not only has it presented evidence to support the claim of an order of morpheme acquisition among Korean adults learning English, it has also highlighted areas that merit further study within the present data, as well as those areas that require elicitation instruments designed for them. The next step, then, would be to follow up on these areas to discover the nature of the errors in the existing categories and how these error types vary from level to level. Designing elicitation instruments that address the questions raised in the chapter on Results, as well as those that would attempt to fill in the gaps in the present study's list of morphemes, would also be beneficial. Any of these undertakings would be a challenge, but the trail has been blazed, and the world of Korean Interlanguage awaits further exploration.

APPENDIX A

ELICITATION INSTRUMENT
English 580, Spring 1981

Present progressive + contractible aux

1. Tell me about your family. Where are your brothers, sisters, aunts, and uncles living, and what kind of work are they doing?
2. What classes are you taking now? What are you studying in that class?
3. What are you going to do tonight? Are you going to watch TV? What programs?
4. What are you going to do after you graduate? Where are you going to live?
5. (Interviewer looks at watch) What am I looking at?
   (Interviewer points to clock) What am I doing now?
   (Interviewer reads a book) What am I doing now?
   (Interviewer gives subject the book) Now you read this. What are you doing? What are you holding?

Past irregular

1. How long have you been living in the United States? What city did you first come to? Do you remember your first day in the U. S.? What did you eat? What did you wear? What did you see? What unusual things did you notice?
2. Let me tell you a little about what I did yesterday. I got up about 7:30 and watched the Today program on TV for a few minutes. Then I went downstairs and fixed breakfast . . . etc. Now I'd like you to tell me what you did yesterday.
3. That's very interesting. Now I'd like you to tell me everything your (husband/wife/sister) did yesterday.
4. What was a typical day like when you lived in Korea? What kind of food did you eat? Where did you go for fun? What did you study at school? Etc.
5. I'm going to open this book. (Interviewer opens a book.) What did I do? (Interviewer performs actions which involve the following verbs: take off, put on, break, get out, stand up, sit down, wind, etc.) What did I do? N. B. The Interviewer should ask the subject to do some of these actions and ask, "What did you do?"

Possessive

1. Please tell me the first names of the people in your family. Do you like any American first names? Whose name is that?
2. Whose houses have you been to lately?
3. What are your family's favorite TV programs? Whose favorite is that? What's your father's favorite?
4. (If you are in an area where the subject knows who owns particular things) Whose red car is that out front? Whose coat is that? Whose room is this? Etc.
5. I brought along a few things that aren't mine. I'm going to tell you whose they are and then ask you whose they are to see if you remember. I'm wearing my brother's shoes, my friend's coat, and my wife's watch. Whose shoes are these? Etc.
   This is John's pen. This book belongs to Sarah, and this pencil is David's. Whose pen is this? Etc.

Contractible copula and Third person singular -s

1. Who is your best friend? Tell me about him/her. Is he a student? . . . tall or short? . . . How old? . . . Where does he live? . . . What does he do for fun?
2. Who is your favorite teacher? Tell me about him/her. Is he easy or hard? . . . very friendly? . . . Why do you like his class? . . . Does he give much homework?
3. Some people say that Americans are busy all the time. Do you think that's true? What are Americans like? Are they different in some ways from Koreans? What are Koreans like? What do Americans do for fun? . . . Koreans?
4. Tell me about a typical day for your brother/sister. What time does he get up? How does he get to school? What classes does he take? Etc.

APPENDIX B

DESCRIBING THE PILOT INFORMANTS

LOW LEVEL INFORMANT: Kathy

Cloze Test Score: .15 (5/33)

Kathy is a 38-year-old Korean beautician who had lived in the United States for one year and had been in an ESL class for one month at the time of her interview. Although she had to use English with her English-speaking customers, the owner of the shop was also Korean, and the Korean language was used more often at home than English. In addition to her husband and three children, her mother-in-law also lived with her. There were about thirty members of his family in this area, and they gathered frequently. Her husband had been a teacher (level unknown) in Korea but was working in construction here. She commented that he was not happy here and wanted to return to Korea.

As was mentioned under the Rationale for Sentential Elements, Kathy deleted sentence elements and responded in short answers. She relied heavily on content words with relatively few structure words, seeming to depend on the context of the discourse to communicate the relations that such words as prepositions and the copula provide. Some of these responses indicated a lack of any attempt to use the existential 'there' (Quirk and Greenbaum 1973, p. 419). This is represented in the following responses to the topic of the differences she encountered in the U. S.

> Big roads . . . too much car . . . no sidewalk . . . my country not much car . . .

In referring to Chu and Park (1978), I discovered that this form does not exist in Korean.

Kathy did not mention her English language training, but I suspect that it had been of the usual foreign language training variety in Korean middle and high school, which heavily emphasizes grammar and reading with little, if any, speaking. It would seem, then, in light of the fact that she had only been in an ESL class for one month, that her capability in English was based on training she had received twenty years earlier and whatever English she had acquired through immersion in American life in the year that she had been here. Therefore, her performance was relatively "uncluttered" by ESL teaching, and she reflected the acquisition of those areas in English that were important for her to communicate in the marketplace and the work place.

MIDDLE LEVEL INFORMANT: Mary Jean

Cloze Test Score: .42 (14/33)

Mary Jean is a 37-year-old woman who had been here for five months at the time of the interview on a "visit visa" (her term) which had been extended for six months. Her husband and children were in Seoul. She was staying with an older sister, a doctor, who had lived here for fifteen years, and a nine-year-old niece who had no interest in learning to speak Korean. Mary Jean had studied English in high school where she mentioned a heavy emphasis on grammar but had not studied English in the university from which she graduated. She claimed no knowledge of English upon her entry into this country and had been taking an ESL

class, which she considered too easy, at a county school for about three months prior to this interview.

She responded to the Interviewer's questioning more elaborately than Kathy had. Consequently, forms appeared that had not been elicited in the earlier study and were either absent or so minimal that no notice was taken of them in Kathy's data. She used negation frequently and was correct a little more than a third of the time; the remaining erroneous forms would make an interesting study in their own right. She also used the -ing form as verbals, in addition to the progressive aspect of the verb. Initially, she seemed to have a good command of the copula, but as she got more into topics that she herself initiated, her successful use of them decreased. She also demonstrated attempts at using embedded sentences.

Her word order was also interesting. In many cases, it seemed to follow the pattern S V O (S) V. Inasmuch as the verb is in the final position in the Korean sentence, it could be suggested that she was between two patterns of word ordering, one for Korean and one for English. She also misused the contractible auxiliary by using it unnecessarily. In eleven different cases, she used the contractible auxiliary unnecessarily with lexical verbs that, according to the context, were or should have been inflected, as in,

I'm came . . .

. . . she is understand . . .

On three other occasions, she used a contractible auxiliary with the modal 'can' and the negative 'not', as in,

She's cannot speak . . .

It is interesting to compare this unnecessary usage with usage in required contexts. Her RFC was only .21 (3/14), and she left them out 50 percent of the time. She seems aware that English has something we call a contractible auxiliary and that it is needed in certain contexts, but she does not, as yet, know these contexts. Corder describes this as a presystematic type of error.

HIGH LEVEL INFORMANT: Ruth

Cloze Test Score: .61 (20/33)

Ruth is a 26-year-old doctoral student in Music at Catholic University. She is here with her husband; they have no children. At the time of the interview, she had been in the United States for less than two years. Like Kathy and Mary Jean, her formal training in English had occurred during middle and high school and had relied heavily on grammar and reading, with no focus on speaking. She had had three months of private tutoring in Korea prior to coming to Indiana University a year earlier, where she had had a conversation and writing course, neither of which she found helpful. She graduated from Seoul National University. No one in her immediate family speaks English, and she and her husband usually speak Korean at home.

An area of difficulty for her that was peripheral with the lower informants, because of the bulk of their other errors, was the way in which she used the contractible copula where a native speaker would use the attributive form of 'have'. She seemed to have trouble with the -d morpheme. She used embedded structures well, and her use of negation was almost flawless. The use of infinitive forms was also in evidence and was, for the most part, correctly used. The expletive

'there' and 'it' were also in evidence in her performance. Many of her mistakes were lexically centered, as in "very stick together" for "crowded", or involved the misuse of two word verbs, as in "to get together people".

APPENDIX C

RAW DATA TABLES

TABLE 1

LOW LEVEL: Kathy

Cloze Test Score: .15 (5/33)

	ERROR TYPE	RFC	OI
1.	-ing morpheme: Progressive (8/8)	1.00	0%
2.	Determiners: Non-article (32/37)	.86	14%
3.	Verbs: Non-copula, non-modal (6/7)	.86	14%
4.	Past regular -d (3/4)	.75	25%
5.	Personal Pronouns (48/87)	.55	84%
6.	Prepositions (26/52)	.50	46%
7.	Negation (6/14)	.43	N/A
8.	Verbs: Lexical (28/70)	.40	19%
9.	Third person singular irregular (10/26)	.38	46%
10.	Past irregular (7/19)	.37	58%
11.	Verbs: Contractible aux (5/14)	.36	64%
12.	Determiner: 'the' (4/12)	.33	66%
13.	Infinitive usage (2/6)	.33	66%
14.	Plural -s (8/25)	.32	N/A
15.	Verbs: Modal (1/4)	.25	75%
16.	Verbs: Contractible copula (8/33)	.23	70%
17.	Third person singular -s (1/13)	.08	N/A
18.	Determiner: 'a' (1/19)	.05	N/A
19.	Korean answer to negative question (0/1)	.00	N/A
20.	Possessive 's (0/4)	.00	N/A
21.	-ing morpheme: Adjective participle	No Contexts	
22.	-ing morpheme: Gerund	No Contexts	

TABLE 2

MIDDLE LEVEL: Mary Jean

Cloze Test Score: .42 (14/33)

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (54/65)	.83	5%
2.	Third person singular irregular (27/35)	.77	23%
3.	Personal pronouns (91/128)	.71	27%
4.	Verbs: Modal (12/18)	.67	28%
5.	-ing morpheme: Progressive (6/9)	.66	N/A
6.	-ing morpheme: Adjective participle (2/3)	.66	N/A
7.	-ing morpheme: Gerund (9/14)	.64	N/A
8.	Verbs: Lexical (69/136)	.51	15%
9.	Verb: Contractible copula (41/80)	.51	28%
10.	Determiner: 'the' (11/24)	.46	N/A
11.	Determiner: 'a' (9/22)	.41	N/A
12.	Negation (13/37)	.39	N/A
13.	Plural -s (11/31)	.35	N/A
14.	Past regular -d (5/15)	.33	N/A
15.	Korean answer to negative question (3/13)	.23	N/A
16.	Verb: Contractible aux (3/14)	.21	50%
17.	Prepositions (12/58)	.21	73%
18.	Past irregular (5/31)	.16	74%
19.	Verb: Non-copula, non-modal (3/20)	.15	75%
20.	Possessive 's (1/7)	.14	N/A
21.	Third person singular -s (0/15)	.00	N/A
22.	Infinitive usage (0/8)	.00	100%

TABLE 3

HIGH LEVEL: Ruth

Cloze Test Score: .61 (20/33)

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (46/48)	.96	4%
2.	Personal Pronouns (112/118)	.95	4%
3.	Third person singular irregular (25/27)	.93	0%
4.	Prepositions (56/63)	.89	11%
5.	Possessive 's (8/9)	.89	N/A
6.	Plural -s (35/40)	.88	N/A
7.	Negation (16/18)	.88	N/A
8.	-ing morpheme: Gerund (11/13)	.86	N/A
9.	Verb: Contractible (41/47)	.85	4%
10.	Infinitive Usage (16/19)	.84	5%
11.	Verb: Non-copula, non-modal (14/17)	.82	10%
12.	Determiner: 'a' (18/24)	.75	N/A
13.	-ing: Progressive (2/3)	.66	N/A
14.	Korean Answer to Negative Question (2/3)	.66	N/A
15.	Determiner: 'the' (14/22)	.64	N/A
16.	Verbs: Lexical (62/102)	.61	4%
17.	Past Irregular (29/49)	.59	41%
18.	Verb: Contractible Aux (2/4)	.50	25%
19.	Past Regular -d (5/14)	.36	N/A
20.	Third person singular -s (1/4)	.25	N/A
21.	Verbs: Modals (1/6)	.17	66%
22.	-ing morpheme: Adjective participle	No Contexts	

APPENDIX D

REVISED DATA TABLES

TABLE 4

LOW LEVEL: Kathy

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (32/37)	.86	14%
2.	Past Regular -d (3/4)	.75	N/A*
3.	Personal Pronouns (48/87)	.55	34%
4.	Prepositions (25/52)	.50	46%
5.	Negation (6/14)	.43	N/A
6.	Verbs: Lexical (28/70)	.40	19%
7.	Third Person Singular Irregular (10/26)	.38	46%
8.	Past Irregular (7/19)	.37	58%
9.	Verbs: Contractible Aux (5/14)	.36	64%*
10.	Determiner: 'the' (4/12)	.33	N/A
11.	Plural -s (8/25)	.32	N/A
12.	Verbs: Contractible Copula (8/33)	.23	70%
13.	Third Singular -s (1/13)	.08	N/A*
14.	Determiner: 'a' (1/19)	.05	N/A
15.	Possessive 's (0/4)	.00	N/A*

* Deleted because of insufficient contexts.

TABLE 5

MIDDLE LEVEL: Mary Jean

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (54/65)	.83	5%
2.	Third Person Singular Irregular (27/35)	.77	23%
3.	Personal Pronouns (91/128)	.71	27%
4.	Verbs: Lexical (69/136)	.51	15%
5.	Verbs: Contractible Copula (41/80)	.51	28%
6.	Determiner: 'the' (11/24)	.46	N/A
7.	Determiner: 'a' (9/22)	.41	N/A
8.	Negation (13/37)	.39	N/A
9.	Plural -s (11/31)	.35	N/A
10.	Past Regular -d (5/15)	.33	N/A
11.	Prepositions (12/58)	.21	73%
12.	Verbs: Contractible Aux (3/14)	.21	50%
13.	Past Irregular (5/31)	.16	74%
14.	Possessive 's (1/7)	.14	N/A
15.	Third Person Singular -s (0/15)	.00	N/A

TABLE 6

HIGH LEVEL: Ruth

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (46/48)	.96	4%
2.	Personal Pronouns (112/118)	.95	4%
3.	Third Person Singular Irregular (25/27)	.93	0%
4.	Prepositions (56/63)	.89	11%
5.	Possessive 's (8/9)	.89	N/A
6.	Plural -s (35/40)	.88	N/A
7.	Negation (16/18)	.88	N/A
8.	Verbs: Contractible Copula (41/47)	.85	4%
9.	Determiner: 'a' (18/24)	.75	N/A
10.	Determiner: 'the' (14/22)	.64	N/A
11.	Verbs: Lexical (62/102)	.61	4%
12.	Past Irregular (26/49)	.59	41%
13.	Verbs: Contractible Aux (2/4)	.50	25%
14.	Past -d (5/14)	.36	N/A
15.	Third Person Singular -s (1/4)	.25	N/A

APPENDIX E

ADDITIONAL INFORMANT DATA

TABLE 7

LOW LEVEL: Kay

	ERROR TYPE	RFC	OI
1.	Personal Pronouns (124/135)	.92	7%
2.	Verbs: Contractible Aux (19/22)	.86	9%
3.	Determiner: Non-article (34/43)	.79	12%
4.	Third Person Present Irregular (23/31)	.74	19%
5.	Verbs: Lexical (112/162)	.69	2%
6.	Negation (16/24)	.67	N/A
7.	Past Irregular (17/26)	.65	35%
8.	Verbs: Contractible Copula (23/41)	.56	39%
9.	Prepositions (40/76)	.53	32%
10.	Plural -s (16/40)	.40	N/A
11.	Determiner: 'the' (17/44)	.39	N/A
12.	Past Regular -d (6/17)	.35	N/A
13.	Possessive 's (4/12)	.33	N/A
14.	Third Singular -s (16/40)	.31	N/A
15.	Determiner: 'a' (7/28)	.25	N/A

NOTE: As explained in Chapter V, Kay's data was deleted from the study.

TABLE 8

MIDDLE LEVEL: Vivian

	ERROR TYPE	RFC	OI
1.	Personal Pronouns (98/104)	.94	3%
2.	Verbs: Lexical (67/91)	.74	0%
3.	Determiner: Non-article (11/15)	.73	27%
4.	Irregular Past (9/14)	.64	7%
5.	Negation (13/22)	.59	N/A
6.	Prepositions (25/45)	.56	58%
7.	Third Person Singular Irregular (8/16)	.50	50%
8.	Verbs: Contractible Aux (1/2)	.50	50%
9.	Determiner: 'a' (6/14)	.43	57%
10.	Verbs: Contractible Copula (9/25)	.36	52%
11.	Determiner: 'the' (6/18)	.33	N/A
12.	Third Person Singular -s (1/3)	.33	N/A
13.	Past -d (4/14)	.29	N/A
14.	Plural -s (5/18)	.28	N/A
15.	Possessive 's (1/6)	.17	N/A

TABLE 9

HIGH LEVEL: Elaine

	ERROR TYPE	RFC	OI
1.	Past -d (11/11)	1.00	0%
2.	Personal Pronouns (79/86)	.92	4%
3.	Third Person Singular Irregular (18/20)	.90	5%
4.	Determiner: Non-article (51/59)	.86	14%
5.	Determiner: 'a' (18/22)	.82	N/A
6.	Negation (13/16)	.81	N/A
7.	Verbs: Lexical (67/88)	.76	0%
8.	Prepositions (47/62)	.76	20%
9.	Verbs: Contractible Copula (23/31)	.74	13%
10.	Past Irregular (8/11)	.73	9%
11.	Third Person Singular -s (7/10)	.70	N/A
12.	Plural -s (27/42)	.64	N/A
13.	Possessive 's (4/7)	.57	N/A
14.	Verbs: Contractible Aux (2/4)	.50	50%
15.	Determiner: 'the' (8/20)	.40	N/A

APPENDIX F

COMPOSITE TABLES

TABLE 10

LOW LEVEL COMPOSITE: KATHY

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (32/37)	.86	14%
2.	Past Regular -d (3/4)	.75	N/A*
3.	Personal Pronouns (48/87)	.55	34%
4.	Prepositions (26/52)	.50	46%
5.	Negation (6/14)	.43	N/A
6.	Verbs: Lexical (28/70)	.40	19%
7.	Third Person Singular Irregular (10/26)	.38	46%
8.	Past Irregular (7/19)	.37	58%
9.	Verbs: Contractible Aux (5/14)	.36	64%*
10.	Determiner: 'the' (4/12)	.33	N/A
11.	Plural -s (8/25)	.32	N/A
12.	Verbs: Contractible Copula (8/33)	.23	70%
13.	Third Singular -s (1/13)	.08	N/A*
14.	Determiner: 'a' (1/19)	.05	N/A
15.	Possessive 's (0/4)	.00	N/A*

* Deleted because of insufficient contexts.

TABLE 11

MIDDLE LEVEL COMPOSITE: JEAN

	ERROR TYPE	RFC	OI
1.	Determiner: Non-article (65/80)	.81	9%
2.	Personal Pronouns (189/232)	.81	16%
3.	Third Person Singular Irregular (35/51)	.69	31%
4.	Verbs: Lexical (136/227)	.60	9%
5.	Verbs: Contractible Copula (50/105)	.48	33%
6.	Negation (26/59)	.44	N/A
7.	Determiner: 'a' (15/36)	.42	N/A
8.	Determiner: 'the' (17/42)	.40	N/A
9.	Prepositions (37/103)	.36	58%
10.	Plural -s (16/49)	.33	N/A
11.	Past Regular -d (9/29)	.31	N/A*
12.	Past Irregular (14/45)	.31	53%
13.	Contractible Aux (4/16)	.25	50%*
14.	Possessive 's (2/13)	.14	N/A*
15.	Third Person Singular -s (1/18)	.06	N/A*

* Deleted because of insufficient contexts.

TABLE 12

HIGH LEVEL COMPOSITE: RUTH

	ERROR TYPE	RFC	OI
1.	Personal Pronoun (191/204)	.94	4%
2.	Determiner: Non-article (97/107)	.91	9%
3.	Third Person Singular Irregular (43/47)	.91	2%
4.	Negation (29/34)	.85	N/A
5.	Verbs: Contractible Copula (64/78)	.82	8%
6.	Prepositions (103/125)	.82	16%
7.	Determiner: 'a' (36/46)	.78	N/A
8.	Plural -s (62/82)	.76	N/A
9.	Possessive 's (12/16)	.75	N/A*
10.	Verbs: Lexical (129/190)	.68	2%
11.	Third Person Singular -s (8/12)	.67	N/A*
12.	Past -d (16/25)	.64	N/A*
13.	Past Irregular (37/60)	.62	35%
14.	Determiner: 'the' (22/42)	.52	N/A
15.	Verbs: Contractible Aux (4/8)	.50	63%*

* Deleted because of insufficient contexts.

BIBLIOGRAPHY

Abbott, Gerry. Towards a more rigorous analysis of foreign language errors. IRAL, 1980, 43, 121-134.

Adamson, Hugh Douglas. George Mason University, Fairfax, Virginia. Interview, 14 October 1982a.

------. George Mason University, Fairfax, Virginia. Interview, 28 October 1982b.

Bailey, Nathalie; Madden, Carolyn; and Krashen, Stephen D. Is there a 'natural sequence' in adult second language learning? Language Learning, 1974, 24, 235-243.

Brown, H. Douglas. Principles of language learning and teaching. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980.

Burt, Marina K. Error analysis in the adult ESL classroom. TESOL Quarterly, 1975, 9, 53-63.

Burt, Marina K., and Kiparsky, Carol. Global and local mistakes. In New frontiers in second language learning, pp. 71-79. Edited by John H. Schumann and Nancy Stenson. Rowley, Massachusetts: Newbury House Publishers, 1974.

Catford, J. C. Contrastive analysis and language teaching. In Report of the nineteenth annual round table meeting on linguistics and language studies, pp. 159-173. Edited by James E. Alatis. Washington, D.C.: Georgetown University Press, 1968.

Chau, Tran-Thi. Error analysis, contrastive analysis, and students' perception: a study of difficulty in second-language learning. IRAL, 1975, 13, 119-143.

Chu, Harold S., and Park, Young-Hee. A contrastive analysis between English and Korean for ESL teachers. Arlington, Virginia: Arlington Public Schools, 1978.

Corder, S. P. Idiosyncratic dialects and error analysis. IRAL, 1971, 9, 147-159.

Corder, S. Pit. Introducing applied linguistics. Baltimore, Maryland: Penguin Books Ltd., 1973.

Corder, S. P. The significance of learner's errors. In New frontiers in second language learning, pp. 90-99. Edited by John H. Schumann and Nancy Stenson. Rowley, Massachusetts: Newbury House Publishers, Inc., 1974.

Diller, Karl Conrad. The language teaching controversy. Rowley, Massachusetts: Newbury House Publishers, Inc., 1978.

Downier, N. M., and Heath, P. W. Basic statistical methods. New York: Harper, Row, 1959.

Dulay, Heidi C., and Burt, Marina K. Natural sequences in child second language acquisition. Language Learning, 1974, 24, 37-53.

Dušková, Libuse. On sources of errors in foreign language teaching. IRAL, 1969, 7, 11-36.

Enkvist, Nils Erik. Should we count errors or measure success? In Errata: papers in error analysis, pp. 16-23. Edited by Jan Svartik. Lund, Sweden: CWK Gleerup, 1973.

Fathman, Ann. The notions of simplification, interlanguages and pidgins and their relation to second language pedagogy. In Actes du 5ème colloque de linguistique appliquée de Neuchâtel 20-22 Mai 1976, pp. 30-38. Edited by S. P. Corder and E. Roulet. Genève: Librairie Droz, 1977.

Fries, Charles C. Teaching and learning English as a foreign language. Ann Arbor, Michigan: The University of Michigan Press, 1947.

George, H. V. Common errors in language learning: insights from English. Rowley, Massachusetts: Newbury House Publishers, 1972.

Ghadessy, Mohsen. An error analysis of the writings of Iranian freshmen learning English--a pilot study. IRAL, 1976, 14, 74-81.

------. Implications of error analysis for second/foreign language acquisition. IRAL, 1980, 18, 93-104.

Hakuta, Kenji, and Cancino, Herlinda. Trends in second-language acquisition research. Harvard Educational Review, 1977, 47, 294-315.

Hammarberg, Bjorn. The insufficiency of error analysis. IRAL, 1974, 12, 185-192.

Lado, Robert. Language teaching: a scientific approach. New York: McGraw-Hill, Inc., 1964.

------. Linguistics across cultures. Ann Arbor, Michigan: The University of Michigan Press, 1957.

Madarász, Paul Huba. Contrastive linguistic analysis and error analysis. Ph. D. dissertation, University of California at Berkeley, 1968.

Nemser, William. Approximative systems of foreign language learners. IRAL, 1971, 9, 115-123.

Nickel, Gerhard. Aspects of error evaluation. In Errata: papers in error analysis, pp. 24-28. Edited by Jan Svartik. Lund, Sweden: CWK Gleerup, 1973.

Oller, John W., and Ziahosseiny, Seid M. The contrastive analysis hypothesis and spelling errors. Language Learning, 1970, 20, 183-189.

Quirk, Randolph, and Greenbaum, Sidney. A concise grammar of contemporary English. New York: Harcourt Brace Jovanovich, Inc., 1973.

Richards, Jack. A non-contrastive approach to error analysis. English Language Teaching, 1971, 25, 204-219.

------. Error analysis and second language strategies. In New frontiers in second language learning, pp. 32-53. Edited by John H. Schumann and Nancy Stenson. Rowley, Massachusetts: Newbury House Publishers, Inc., 1974.

------. Second language acquisition: error analysis. In Annual review of applied linguistics: 1980, pp. 91-107. Edited by Robert B. Kaplan, Randall L. Jones, and G. Richard Tucker. Rowley, Massachusetts: Newbury House Publishers, Inc., 1981.

Ritchie, W. C. Some implications of generative grammar for the construction of courses in English as a foreign language. Language Learning, 1967, 17, 45-69 and 111-131.

Schachter, Jacquelyn. An error in error analysis. Language Learning, 1974, 24, 205-214.

Schachter, Jacquelyn, and Celce-Murcia, Marianne. Some reservations concerning error analysis. TESOL Quarterly, 1977, 11, 441-451.

Schumann, John H., and Stenson, Nancy, ed. New frontiers in second language learning. Rowley, Massachusetts: Newbury House Publishers, Inc., 1974.

Selinker, Larry. Interlanguage. In New frontiers in second language learning, pp. 114-136. Edited by John H. Schumann and Nancy Stenson. Rowley, Massachusetts: Newbury House Publishers, Inc., 1974.

Strevens, Peter. Two ways of looking at error analysis. Bethesda, Md.: ERIC Document Reproduction Service, ED 037 714, 1969.

Svartik, Jan, ed. Errata: papers in error analysis. Lund, Sweden: CWK Gleerup, 1973.

Taylor, Barry. Toward a theory of language acquisition. Language Learning, 1974, 24, 23-35.

Valdman, Albert, and Gradman, Harry. A selected bibliography on language learner's systems and error analysis. Bethesda, Md.: ERIC Document Reproduction Service, ED 105 772, 1975.

Wardhaugh, Ronald. The contrastive analysis hypothesis. In New frontiers in second language learning, pp. 11-19. Edited by John H. Schumann and Nancy Stenson. Rowley, Massachusetts: Newbury Publishers, Inc., 1974.